

REMARKS

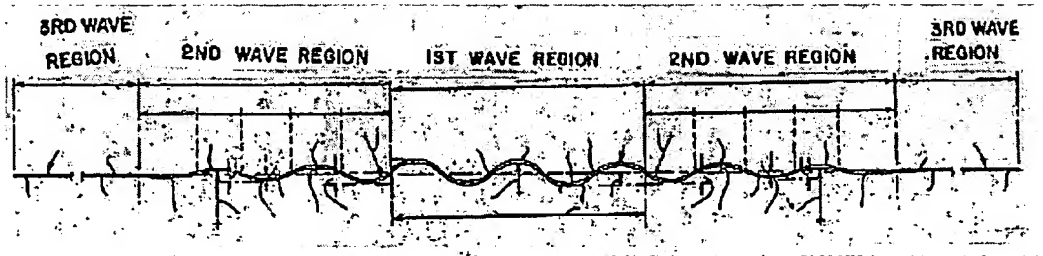
The present application stands with claims 1-19 where claims 1 and 9 are independent. Applicants amended claims 1, 4 and 9, and added new claims 18 and 19 for the reasons discussed below.

Although other features of claims 1 and 9 were also amended for other reasons, the third wave region recited in claims 1 and 9 were amended, and new claims 18-19 were added, to broaden the scope of the invention as was the removal of the word “uniformly” in regard to the second wave region in these claims.

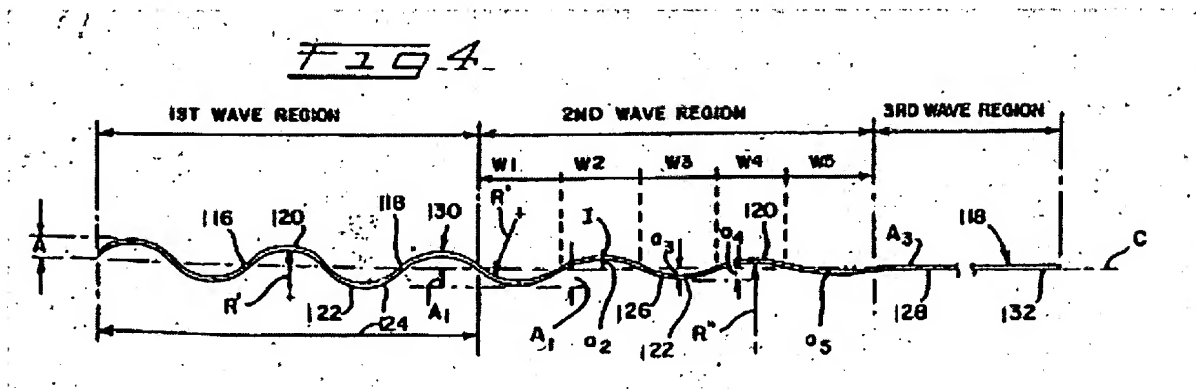
Claims 1-8 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Greenhill et al. (U.S. Patent No. 4,901,987) in view of knowledge of those skilled in the art. In response, Applicants respectfully traverse because Greenhill ‘987 does not disclose or suggest a first wave region at a terminal end of the spring and that includes “a plurality of successive waves each having wave crest and wave trough portions...” where the waves have a constant non-zero amplitude as now recited in claim 1.

Instead, Greenhill ‘987 clearly teaches that both ends of a spring should have flat shim ends 32 (Figures 2-3) and that the prior art has no shim ends (Figure 1).

The Examiner should note that while Figure 4 of Greenhill '987 is similar to Figure 4 of the present invention, in Greenhill '987 Figure 4 only shows 3/5 of the length of the spring (see col. 3, lines Thus, in Greenhill '987 Figure 4, the entire spring should like this:



In contrast, Figure 4 of the present invention as shown here is the entire spring from terminal end to terminal end.



Nowhere does Greenhill suggest that only one of the ends should have a flat shim as is taught by the present invention. Nor does Greenhill '987 combined with skill in the art teach that the shims may damage flat surfaces, use too much material and/or make the spring cumbersome. Nowhere does Greenhill '987 teach that while one flat shim may remove an imbalance problem, the other end of the spring should have crests and troughs to prevent slippage of the spring.

Since Greenhill '987 does not disclose or suggest having waves with crests and troughs on one terminal end, and in fact teaches directly against this structure by teaching both ends should have shims, Applicants submit that the rejection of claim 1 has been overcome. For this reason, Applicants respectfully request that the §103 rejection of claim 1 and its depending claims 2-8 be withdrawn.

Claims 9-17 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Greenhill '987 in view of Wohler (U.S. Patent No.5,470,049). In response, Applicants amended claim 9 similarly to claim 1 and repeat the argument from above for overcoming the rejection of claim 1. Specifically, the cited references, alone or in combination, do not disclose or suggest a first wave region on a terminal end with uniform non-zero amplitude waves with crests and troughs. Greenhill '987 shows flat shims 32 on both ends.

Even more distinguishable, the entire spring of Wohler is a constant non-wave (or zero amplitude) helical spring and certainly does not show a first wave section with constant non-zero amplitude waves as understood in the present application. Thus, the support base 3 in Wohler cannot possibly disclose or suggest the claimed base with a recess for receiving the terminal wave, which has a non-zero amplitude, of the first wave region as now recited in claim 9. For these reasons, applicants submit that the §103(a) rejection of claim 9, and its depending claims 10-17 has been overcome. Accordingly, Applicants respectfully request that the §103 rejection of claim 9 and its depending claims 10-17 be withdrawn.

For all of the reasons mentioned above, Applicants respectfully request reconsideration and allowance of all claims. The Examiner is invited to contact the undersigned attorney to expedite prosecution.

No fee is thought to be due in conjunction with the submission of this Amendment. However, the Director is hereby authorized to charge any deficiency to Deposit Account No. 18-2284 of Piper Rudnick LLP, duplicate copy attached.

Respectfully submitted,

PIPER RUDNICK LLP

By: 

Joel H. Bootzin
Reg. No. 42,343

PIPER RUDNICK LLP
P.O. Box 64807
Chicago, Illinois 60664-0807
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